

**REMARKS**

Claims 1-15 are currently pending in the application, with claims 1, 7 and 9 being independent. Claim 7 has been amended to more appropriately define the present invention. New claims 10-15 have been added to present additional features of the invention.

**Allowable Subject Matter**

In the Office Action, the Examiner indicated that claim 3 was objected to as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form. Applicants again wish to thank the Examiner for the indication of allowable subject matter.

**Claim Rejections - 35 USC § 102(b)**

The Examiner rejected claims 1, 6, 7 and 9 under 35 U.S.C. § 102(b) as being anticipated by U. S. Patent No. 6,463,101 to Koto ("Koto"). Applicants respectfully traverse this rejection.

Koto merely discloses a video encoding method and apparatus which provides the ability to set a random access point in an arbitrary position without any decrease in encoding efficiency (column 1, line 66 through column 2, line 3). Koto discloses dividing encoding frame data into groups, each having a predetermined intra-frame prediction structure; every time encoding of a currently encoded frame group is complete, it is checked whether a random access point is set to the next frame group. If it is determined that a random access point is set, the inter-frame prediction structure is changed to extend the current encoded frame to the frame immediately preceding the setting position of the random access point (column 2, lines 35-49). Specifically, Koto discloses a controller section 23 which determines the Group of Pictures (GOP) and picture types (I-picture, B-picture and P-picture) in accordance with instructions contained therein (see column 5, lines 47-51). The controller section 23 controls the picture

reordering section 11 in accordance with the inter-frame prediction structure and picture types, and also instructs the motion compensated prediction section 20 to encode a specific frame by using a specific frame as a reference picture. In addition, controller section 23 controls the switches S1 and S2 to switch the encoding mode so as to perform intra-frame coding or motion compensated predictive inter-frame coding (column 5, lines 51-59).

Inter-frame prediction structures and picture types are basically controlled in units of GOPs by setting an I-picture in a frame series at a predetermined interval. However, to allow setting of a random access point in an arbitrary frame position, Koto discloses that the GOP structure is dynamically changed in accordance with the random access point setting position (column 5, lines 60-66). The GOP structure is changed such that the GOP length immediately preceding the random access point is extended to a frame immediately preceding the random access point, and a new GOP interval starts from the random access point (column 5, line 66 through column 6, line 4). Therefore, Koto discloses performing scene change detection during the video encoding process.

However, Koto fails to disclose, at least, “an encoding preprocessing portion for extracting an amount of image change feature from a moving image not encoded ... wherein the amount of image feature is extracted on an interframe basis,” as recited in claim 1 (emphasis added), and “extracting an amount of image feature from a moving image prior to encoding,” as recited in claim 7 (emphasis added), and “an encoding preprocessing module which extracts interframe feature information from an unencoded moving image,” as recited in claim 9 (emphasis added).

Koto is distinguished by the above-recited features in claims 1, 7 and 9 in that Koto’s processing occurs during encoding, and random access points are dynamically assigned using a scene change detector section 24 to set random access point positions automatically (see column 5, line 65 and column 6, lines 13-16). Applicants disagree with the Examiner’s assertion that scene change detector 24 is

analogous to preprocessing (Office Action: page 3, paragraph 8, line 6). Applicants respectfully direct the Examiner's attention to column 10, lines 15-26, wherein Koto discloses a random access point is designated after a first GOP is processed. Since a random access point is generated by scene change detector section 24, this section cannot be performing a preprocessing step (see also Fig. 7, wherein step S2 a random access point is checked after the start of encoding). Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of independent claims 1, 7 and 9. Claim 6 depends from allowable claim 1 and is allowable by virtue of its dependence.

**Claim Rejections – 37 C.F.R. § 103(a)**

The Examiner rejected claims 2, 4 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Koto, and further in view of the publication International Conference on Image Processing, Vol. 3, 24-28 October 1999, page 299-303 to Fernando et al ("Fernando") and U. S. Patent No. 6,771,825 to Hurst ("Hurst"). Applicants respectfully traverse this rejection.

Claims 2, 4 and 8 depend from claims 1 and 7, respectively, and contain all of the recitations recited therein. Applicants submit that Hurst fails to cure the deficiencies of Koto provided above.

Hurst merely teaches a technique for improving the efficiency of coding dissolves in video streams. Hurst further discloses that the coding of dissolves are constrained to ensure that, other than the first frame and/or the last frame, no other frame is a dissolve which is coded as an anchor frame (an MPEG-I or P frame). Hurst teaches that when dissolves are encoded, they are constrained to non-anchor frames (i.e., B frames). (See column 2, lines 10-20.)

Hurst is silent with respect to the features provided in the arguments above for independent claims 1, 7 and 9. Accordingly, Applicants respectfully request the Examiner to withdraw the § 103 rejection of claims 2, 4 and 8.

The Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Koto, further in view of U. S. Patent No. 6,631,210 to Mutoh et al. ("Mutoh").

Claim 5 depends from allowable claim 1, and includes all of the recitations recited therein. Applicants submit Mutoh fails to cure the deficiencies of Koto provided above.

Mutoh merely teaches an image processing apparatus which performs discrimination among various areas using density values of pixels. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claim 5.

**Conclusion**

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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